Similarly, Arikawa does not disclose a computer system, comprising a map server computer for storing map data representative of a map of a geographical area and coordinate data representative of spatial coordinates of at least one point lying within an area represented by the map, as recited in claims 46-56.

Arikawa teaches so called "dynamic maps" being built up or assembled. Arikawa teaches that various geographic databases store sets of data of certain facilities. Arikawa takes an object-oriented programming approach (OOP). Data are stored as "conceptual objects". See the first paragraph in Section 2.1 of Arikawa at page 592. Such a geographic database might, for example, be held by a railway operating company and may include the name of a railway station, its geographic coordinates, its opening and closing times, the number of employees at the station, etc.

Referring to Figure 3 of Arikawa and the associated description in Section 2.1, a user wishing to obtain a map, including details of the railway stations in a particular area, interrogates that database by sending queries to that database. Database views are defined by a set of queries provided by the user and include the actual data to be displayed, such as a name of a station, it's location and it's opening time, for example. Visualization methods are then used to determine which "display objects" relate to the "conceptual objects" and which should actually be displayed on a users visual display unit to provide "visual layers". "Display objects" might, for example, correspond to a bright icon or a dim icon representing an open or closed railway station, respectively with, in this example, a "conceptual object" corresponding to a railway station. A "dynamic map" is built up by combining the visual layers relating to several geographical databases. By way of example, the combination of geographic databases and visualization methods may provide, through this method, visual

layers which show (1) parkland in green for a particular user location, (2) roads in black lines for the location, and (3) icons representing railway stations in the location, yellow icons being used for open stations and gray icons being used for closed stations. The dynamic map built up, in this case, would be a superposition of the (green) parkland layer, (black) roads layer, (yellow or gray) railway stations icon layer. In other words, the user of the system disclosed by Arikawa builds up his or her own map in his or her own computer by applying visualization methods to the data retrieved from the geographical databases.

Arikawa is primarily concerned with how to visually compose the layers to build up the map for the user in a way which retains clarity and which is dynamic so that the user tracts over a displayed map or zooms the view in and out. The data is displayed automatically and dynamically adjust itself accordingly to retain clarity in the displayed composite map.

Thus, Arikawa is concerned with the visual representation of data relating to geographic information for certain facilities or services obtained from several geographic databases to allow a user to obtain a composite map which is built up from separate layers. This is reflected in the concluding remarks in Section V of Arikawa in which it is stated that "[m]aps should be the results of composing multiple pieces of geographic information using visualization methods to find appropriate compromises between a users requirement and limitation of display screens."

Arikawa is not concerned with the problems of identifying sources of geographic information, establishing network connections to those sources, sending queries and receiving responses, and converting all of the responses into a single coordinate system. On the contrary, Arikawa addresses the problems of displaying the information in a manner best

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suited to a user's needs and the limitations of the user's display device and appears to assume that there exists or will exist solutions to problems of identifying sources of geographic information, establishing network connections to those sources, and sending queries and receiving responses and converting all the responses into a single coordinate system.

The present invention is concerned with a different problem than that considered by Arikawa. The present invention is concerned with providing a user with a map of a specified location, (usually the present location of the user) from a map server computer. The user can request information relating to certain categories of interest to the user which fall within the area covered by the displayed map. The request is sent to an information server which holds information relating to that category and which returns data which is appropriate to provide icons or other graphic information to be over laid on the map provided by the map server. Thus, the present invention is concerned with the problems of identifying sources of geographic information, establishing network connections to those sources, sending queries and receiving responses, and converting all the responses into a single coordinate system.

The present invention therefore, solves two problems. First, the user can obtain a complete detailed map for a particular location, typically a conventional street map, from a map server computer; the user selects categories of interest to be displayed on the map and the relevant information is obtained from appropriate information servers; the user is therefore provided only with information of interest, as requested by the user, and the information is typically displayed on a conventional map on the user's visual display unit. Second, the providers of information on the information server computers do not have to obtain map data and merely have to provide geographic coordinates of the locations of the facilities in there particular category. As stated on Page 6, line 16-23 of the present

application, it is a particular advantage of the present invention that the various information servers do not need to have knowledge of the map server software provided on the map server, and *vice versa*. All that is required is a consistent protocol for providing the coordinates of the various places of interest.

Thus, based on the above, Applicant submits that the invention comprises a map server computer for storing map data representative of a map of a geographical area and an information server computer for storing information data representative of at least one place of interest within the geographical computer, as recited in the claims. Arikawa, on the other hand, teaches the delivery of data to a client computer. The client computer receives the data and then builds a map according to a user's requirements. Consequently, Arikawa does not disclose a map server computer and therefore, there can be no storing of map data on a map server computer, as recited in the claims.

Further, Applicant submits that Arikawa teaches away from the invention. For example, at the end of the left column on page 591 of Arikawa, it is stated that "[t]he geographic information services through the current style WWW, however cannot provide any other data but image data, because of the simple treatment of all visual information. The limitation cannot allow users to compose multiple geographic information retrieved from varied servers as one map." Yet, Applicant's invention does combine image data and multiple geographic information data from varied servers as one map.

For the above mentioned reasons, Applicant requests that the rejection be withdrawn.

In the first part of Section 3, on page 2 of the Office Action, the Examiner asserted that certain portions of Arikawa correspond to the three storage acts of claim 30. Applicant submits that the Examiner's analysis is incorrect. The Examiner appears to believe that what

is referred to in Arikawa as "GeoProxy" is equivalent to a map server computer of the present invention. However, GeoProxy, in Arikawa, is an object such as in object oriented programming, OOP.

Furthermore, Applicant submits that the statement in Arikawa that "data forms ... should be independent of output forms", quoted by the Examiner in the first portion of section 3, on page 2 of the Office Action, is a direct teaching away from the present invention. The present invention teaches a map server computer delivering information to a client computer in a form of a map decided by the map server. The maps are then displayed on the user's visual display unit. Thus, the data forms of the map data are not independent of the output forms.

Furthermore, in paragraph 4 of the Office Action, the Examiner has referred to, but not relied upon, other references. The Examiner indicated that these other references, "further show the state of the art with respect to navigating a world map." Applicant wishes to point out that the present invention is not another way of "navigating a world map." On the contrary, the present invention provides the ability to call up a map from a map server computer and then call up information data from one or more information server computers and then combine the images thereby supplied to provide a useful map for the user having the requested information data displayed thereon.

Applicant submits that new claims 57-63 are patentable over the cited prior art.

Claims 57-62 depend, directly or indirectly from either of claims 30 or 46, and are patentable for the reasons mentioned above, as well as for reciting other important features.

Claim 63 is similar to claim 46, but recites "a map requesting mechanism" instead of means for transmitting a map request, "a map image displaying mechanism" instead of

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"means for displaying an image", "an information request transmitting mechanism", instead of "means for transmitting an information request", and "a response transmitting mechanism", instead of "means for transmitting to the client computer in response to the information request." Applicant submits that claim 63 is patentable for the reasons discussed above regarding claim 46.

Applicant submits that for a user to operate Arikawa's system, the user must effectively run Arikawa's program in the client's computer because the user's computer must know how to handle the objects delivered in Arikawa's system in order to build a map. In direct contrast, the invention, as recited in claims 57 and 61 uses an internet browser to display information data on a video display unit. Furthermore, map images in the present invention are constructed at the map server, not at the client computer, as disclosed in Arikawa.

For the above-mentioned reasons, Applicant submits that the claims are patentable over the cited prior art and respectfully request that the rejection be withdrawn.

Applicant further wishes to point out that the European Patent Office issued an entirely favorable International Preliminary Examination Report, in which the patentability of all claims was acknowledged. The corresponding European Patent Application No. 96900392.0 has been put forward for a patent grant by the European Patent Office and the Rule 51(4) Communication ("the advanced notice of allowance") has been issued by the European Patent Office with claims similar to claims 30-56 in the present application. Arikawa is one of the main documents in which the European Patent Office Examiner relied during the International Preliminary Examination.

Applicant respectfully submits that the application is now in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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